

### **ABSTRACT OF THE DISCLOSURE**

A control system for an electric motor. Field Oriented Control, FOC, uses a digital control system, and attempts to maintain the rotating stator magnetic field ninety degrees ahead of the rotor field, in order to maximize torque. However, if a three-phase motor is used, which is very common, large amounts of computation are required, to convert from a three-phase coordinate system to an orthogonal coordinate system. The invention replaces the three-phase motor with a two-phase motor, which has been found to impose certain additional costs, but also provides benefits.